

MISSOURI. Conservationist

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The Gift of Time

It continually amazes me to see the number of volunteers that perform work for the Department. Almost monthly we see another person being recognized for volunteer hours. This is an area we promote

to get more people involved in conservation activities. You might have also seen in the *Conservationist* that there is a focus on involving youngsters in the outdoors. When possible, I too try to get out from behind the desk to participate in these areas—especially if I can do both at the same time.

My stepson, Rob, has been in Scouts since the first grade. I have been right there with him—den meetings, camp outs, merit badges and now an Eagle Scout project. Rob is an outdoorsman. He loves to hunt and fish. When it came to determining a project, he wanted to give something back to the outdoors he loves. I told him I would be glad to help. It began with a phone call to Runge Nature Center Manager Kathy Cavender to see if there were any projects that might need to be done on the area.

Rob set up a time to meet with Kathy, went over a couple of projects she had in mind and chose to clean out the underbrush from a 100-year-old oak and a neighboring tree. The work would help to prolong the life of the tree. Rob worked with Doug Starke, the grounds supervisor to plan the details of the work. He then enlisted several of his friends and relatives to help. He had to make sure that not only did he have the people to do the work, but also the equipment and tools that were needed.

On a beautiful Saturday in November we met at Runge with chainsaws in hand. Being outside was refreshing, the work was challenging and the next day was a little painful (remember the “behind the desk” statement). The special part of the day was that besides the buddies Rob had wrangled into helping, his grandfather, mother, sister and an uncle were there to help—three generations working side by side to assist nature.

By the time you read this note, the last phase of the project should be done. The Runge grounds crew chipped up the trees and bushes we cut down. This mulch will be used other places on the grounds. Rob and a new crew of help will plant native plants under the trees to help sustain the area. What he has done will

be used as a model for others to use to help give these beautiful old trees extended life.

The week of April 19–25 is National Volunteer Week. Without volunteers many important things would go undone. We are thankful for all our volunteers and are always looking for more folks to help. If you are interested in becoming involved as a volunteer, visit www.MissouriConservation.org/9012.

Carter Campbell, administrative services division chief



Carter Campbell (left) and his stepson, Rob, preparing to clear brush at Runge Conservation Nature Center in Jefferson City.









OUR MISSION: *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*



Cover: Indigo bunting by Noppadol Paothong. Learn more about where the indigo bunting, as well as many other Missouri birds, spend their winters in Kelly R. Gillespie's article "Going South," starting on Page 20. Left: Catfish anglers by Cliff White. Read more about the Department's catfish management plan in Tom Cwynar's article "Catfish, MO," starting on Page 14.

NextGEN

This section reports on goals established in *The Next Generation of Conservation*. To read more about this plan, visit www.MissouriConservation.org/12843.

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We have been able to work on this dream with the assistance of numerous conservation specialists. Greg Pritchford, Department of Conservation fisheries specialist, has been very helpful in giving us the appropriate advice and counsel about aquatic life in our ponds in order to maintain an active fishing opportunity for visitors. Mike McClure, biologist, has been helpful in establishing a Ducks Unlimited project and also a wetlands project on our home place. Many individuals with the Conservation Department have been eager to help with our efforts to be good stewards of the land, and I am indebted to each of them for the help we have received.

Since we began, Lee Metcalf, private land conservationist, has been with us every step of the way. He has been a tremendous resource and his level of expertise and knowledge are evident in your *Key Quail Habitat 2009 Calendar* that he coauthored. This document has provided endless information as we continue to improve upon "the value of Missouri traditions" and share these traditions with others.

We are probably two to three years from completion of our project. This spring and summer my wife, children and grandchildren, and our partners with the Conservation Department, have an aggressive schedule planned to move us closer to completion of this project.

Best regards for continued progressive leadership of the Missouri Department of Conservation, and thanks to all of those associated with the Department for their help and support.

Richard Phillips, Lake Tapawingo

Editors' note: The Conservation Department is committed to making its programs, services and outdoor resources accessible to everyone. To learn more about disabled-accessible conservation areas and facilities, check out Disabled-Accessible Outdoors online at www.mdc.mo.gov/12183, or request this free publication by e-mailing pubstaff@mdc.mo.gov or mailing your request for publication HR0062 to Publications, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180.

ACCESSIBLE MO.

I read with great interest your "Note to Our Readers" in the January *Conservationist*, titled *The Value of Missouri Traditions*.

The article reminded me of the traditions we have on our farms north of Norborne in Carroll County. The "home place" has been in our family since 1877. We cherish our heritage, the memories we have of family members, and also the anticipation of protecting and preserving our heritage to pass on to future generations.

We have another farm four miles from the home place that belonged to my brother, Gary,

who was a polio victim and passed away nine years ago. Although polio took its toll on him with numerous surgeries and hospital stays throughout his life, he was able to persevere with braces and other assisting devices to engage in farming his 160-acre farm. Since his passing we have worked with the Department of Conservation staff on a wildlife restoration project in his memory.

We also have a 13-year-old granddaughter who has, for the past two and a half years, faced the challenges of leukemia. Remembering the challenges faced by my brother and with what our granddaughter has gone through, we decided to develop Gary's farm into a disabled-accessible project for disabled children and their families. We are building disabled-accessible docks around the ponds and developing camping areas and other appropriate facilities to accommodate others who have unique challenges and want to participate in a variety of outdoor activities.

MISSOURI. Conservationist

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Reader Photo

SIGNS OF SPRING

Seventeen-year-old Josh Dampier, of Cedar County, captured this picture while morel mushroom hunting last spring. "I saw the huge morel first," said Dampier, "but when I leaned down to pick it, I noticed the toad." He said the toad waited for him to take the picture, but then hopped away after he picked the mushroom.

now we're COOKIN'

Almond Turkey Bake

Try this recipe with your spring harvest.

1 cup shredded cheddar cheese
1 tablespoon flour
1 cup toasted slivered almonds
1 ½ cups celery slices
3 cups cooked, chopped turkey
1 tablespoon lemon juice
½ teaspoon poultry seasoning
1 cup mayonnaise
½ teaspoon salt
⅛ teaspoon pepper
Pastry for 2-crust 9-inch pie

Blend cheese and flour. Take ¾ cup of the cheese/flour mix and combine with ½ cup almonds and remaining ingredients except the pastry. Mix well.

Fit the pastry into a baking dish (approximately 12 x 7); trim to 1" beyond the edge and flute the edge of the crust. Fill with turkey mixture and top with the remaining cheese/flour mix and almonds.

Bake at 400 degrees for 30–35 minutes. Garnish with lemon twists and parsley.

Find a video and a PDF to download this recipe, as well as many others, at www.MissouriConservation.org/19463.



ASK THE OMBUDSMAN

Q: Will the below-zero temperatures we experienced this past winter affect the bug population this spring and summer?

A: There are many factors that determine insect populations in a given year, and low temperatures during the previous winter might affect some groups. Most insects, however, are well-adapted to the cold temperatures and have mechanisms for dealing with cold weather. Some overwinter in the living tissues of plants, in leaf litter or underground where they are insulated from extreme temperatures. Others go into a dormant state called diapause, during which all of their cells go into a state of suspended animation, similar to hibernation but more extreme. Abundance is difficult to predict, but I wouldn't count on seeing fewer bugs this year.

Q: I live in an area that has always had lots of squirrels, but this year they are all gone. I have heard that they will migrate to avoid food shortages but this year we had a bumper crop of hickory nuts, walnuts and acorns. Why would they leave?

A: Squirrel numbers often cycle in response to the previous year's abundance of nuts, berries and seeds. The poor availability of food in 2007 may have reduced your squirrel population in 2008. The prolonged April freeze that occurred around Easter of 2007 reduced acorn crops and many other food sources during the fall of 2007. There is a long history of squirrel population swings that are documented as far back as early settlement times, and we still experience these. Squirrel numbers are probably down in many parts of the Ozarks at present. The population should slowly recover with a resumption of normal acorn crops.

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.





Species of Concern

Alabama Snow Wreath



Common name: Alabama snow wreath

Scientific names: *Neviusia alabamensis*

Range: Arkansas, Mississippi, Alabama, Tennessee and Georgia

Classification: Imperiled globally, due to rarity

To learn more about endangered species: www.MissouriConservation.org/8227

ALABAMA SNOW WREATH is sort of the Flying Dutchman of Missouri plants. Observed by a botanist in Butler County more than 90 years ago, it has not been found in the Show-Me State since. However, the existence of several scattered populations in northern Arkansas provides hope that it might turn up on this side of the state line again one day. This shrub stands 3 to 6 feet tall and grows in colonies that spread by rhizomes. The feathery white flowers, which appear in April, form clusters at the ends of arching branches. The edges of its leaves have a distinctive, double-toothed form. Alabama snow wreath usually grows on dry, rocky, forested slopes around sinkholes or along streams, but the Butler County specimen was growing in sandy loam. If you think you have found one, please photograph the whole plant, plus close-ups of the leaves and flowers and call 573-751-4115 to report it.

PHOTO: DON KURZ

Habits to Houses

New booklet condenses purple martin wisdom.

Purple martins begin nesting in Missouri this month. Their return fills the air with cheerful chatter

as man-made martin houses fill with chicks. The Conservation Department has a new publication, *Missouri's Purple Martins*, full of information about martins and how to attract them to your neighborhood.

You can find the 12-page booklet at www.MissouriConservation.org/12199.

To receive a printed copy, e-mail your name and address to pubstaff@mdc.mo.gov, or mail to *Missouri's Purple Martins*, MDC, PO Box 180, Jefferson City, MO 65102-0180.



Missouri Wildflowers

Revised book is more beautiful and easier to use.

A revised edition of *Missouri Wildflowers* makes learning about Show-Me State flowers easier than ever. The 277-page, day-pack sized book by Edgar Denison was first released in 1972 and has become an essential part of serious amateur naturalists' libraries.

Revisions incorporated into the sixth edition include a stunning new cover, updated taxonomy, larger photos and color-coded page tabs to help users quickly find information about flowers based on colors and blooming times. The book features 297 photos and detailed information

about native and naturalized Missouri wildflowers and an appendix that describes another 163 flowering plants. *Missouri Wildflowers* is available for \$12 plus shipping and handling, and sales tax (where applicable) by calling toll free 877-521-8632 or visiting

www.mdcnatureshop.com or at Conservation Nature Centers statewide.





National Forest Adventure

Try a turkey hunting/floating combination trip this spring.

Nothing beats turkey hunting for excitement, but you can boost the adventure factor several notches by pursuing gobblers on a float trip through the 1.5-million-acre Mark Twain National Forest. Float-hunters wake up at their hunting spots instead of having to rise hours before dawn to drive there. Legendary float streams like the Big Piney, North Fork and St. Francis rivers flow through these federal lands, along with dozens of lesser-known but equally scenic streams. For maps, visit www.fs.fed.us/r9/forests/marktwain/maps/, or call 573-364-4621.



Flowering dogwood

View Dogwoods in Comfort

Scenic drives make spring's beauty accessible.

Although we usually think of autumn as Missouri's season of splendor, our forests put on an equally impressive show each spring when native flowering trees bloom. The Eastern redbud (*Cercis canadensis*) and flowering dogwood (*Cornus florida*) are Missouri's showiest trees, drawing attention from sightseers, artists and photographers. Redbuds blossom first, sending out rose-purple clusters late March through early May. Dogwood blossoming normally peaks in mid-April near the Arkansas border and two to three weeks later near Iowa.

Several Show-Me State highways provide scenic backdrops for the annual display. These include Highway 19 between Montgomery City and Thayer, Highway 5 between Versailles and Gainesville, Highway 142 between Doniphan and Bakersfield, Highway 72 between Cape Girardeau and Rolla, I-44 between Eureka and Rolla, Highway 50 between Eureka and Jefferson City and Highway 60 between Poplar Bluff and Springfield.

Trail Guide



Spiderwort at Wildcat Glade Natural Area

ANSWER THE CALL OF WILDCAT GLADES



VISITORS TO JOPLIN'S Wildcat Park spend countless hours each year exploring nature, thanks to a partnership between the City of Joplin, the Conservation Department and Audubon Missouri. Wildcat Glade Natural

Area and the Wildcat Glades Conservation & Audubon Center form the nucleus of this outdoor paradise. Visitors enjoy walks over sun-drenched Wildcat and Silver Creek glades, through shade-dappled savannas or along bluffs overlooking Shoal and Silver creeks. At the Audubon Nature Center, they learn about the area's diverse bird life and peer into a 1,300-gallon aquarium with rainbow darters, stonerollers, goggle-eye, gar and other aquatic life. The area is off Highway 86 just south of I-44 in Joplin. The nature center is open from 9 a.m. to 5 p.m. Tuesday through Saturday and from 11 a.m. to 4 p.m. Sunday.

Area name: Wildcat Glade Natural Area & Wildcat Park

Trails: Bluff Trail (1.1 mi.), St. John's Creek Trail (.83 mi.), Woodland Loop Trail (.33 mi., ADA accessible), Wildcat Glade Natural Trail (.6 mi.), Metro Trail (.6 mi.) and Rotary Centennial Trail (.33 mi.)

Unique features: Chert glade & Audubon Center

For more information: Call 417-782-6287 or visit www.wildcatglades.audubon.org



TAKING ACTION

St. Francois County Wild Bunch



Group Featured: St. Francois County Wild Bunch 4-H Group

Group Mission: The focus of all 4-H programs is the development of youth as individuals and as responsible and productive citizens. In the National 4-H Shooting Sports Program, youth learn marksmanship, safe and responsible use of firearms, principles of hunting and archery, and more. The activities of the program and the support of caring adult leaders provide opportunities to develop life skills, self-worth and conservation ethics.

Learn More About the National 4-H Shooting Sports Program: Visit www.4-hshootingsports.org or call 202-720-3566

CONSERVATION AGENT GRANT Gelly had worked with the Wild Bunch before, assisting them with programs on hunting regulations, hunting safety and trapping. In turn, he says, they showed him a thing or two on the shooting range. This time, the group was looking for a community project that would benefit conservation. "We decided that building wood duck boxes would be the perfect fit at Bismarck Lake CA," says Gelly.

The group participated in every step of the project, including grant writing and soliciting funds, gathering materials, and measuring, cutting, drilling and finally assembling 15 houses. After building the boxes, the group learned about their importance for the ducks and how nest boxes had brought the species back from the brink of extinction. They also talked about wood duck feeding and habitat needs, clutch size, predators, how the ducklings leave the box, and why Bismarck Lake, in particular, is a great place for wood ducks. "The project was a great success," says Gelly. "There may be partnerships with MDC in the future."

Collect Those April Showers

Rain barrels cut costs, benefit plants & conserve resources.

Spring's showers can bring you much more than May flowers (though they'll be perkier, too) if you install a rain barrel. Inexpensive and easy to use, rain barrels collect water from your home's downspout for use in landscaping, gardening and a variety of other indoor and outdoor uses.

Rain barrels can reduce pressure on aquifers, treatment plants and wells; lower home water and energy costs; and divert water that might otherwise contribute to urban runoff, erosion and pressure on sewage systems. The soft, chlorine-, lime- and calcium-free water has less sediments and salt than municipal water and is ideal for plants and cleaning uses.

A number of conservation and civic groups, as well as some city governments throughout Missouri, have rain barrel programs and workshops. For more information on making your own rain barrel, or purchasing a ready-made barrel, check with your local municipality or contact one of these great sources: Missouri River Communities Network, Columbia, www.moriver.org, 573-256-2602; Bridging The Gap, Kansas City, www.bridgingthegap.org, 816-561-1087; 10,000 Rain Gardens, Kansas City, www.rainkc.com (this Web site has a searchable "Where to Buy" database); the James River Basin Partnership, Springfield, www.jrbp.missouristate.edu, 888-924-WATER; or the River des Peres Watershed Coalition, St. Louis, www.thegreencenter.org, 314-725-8314.





Shallow Crappie

When dogwood is in bloom, look for crappie near shore.

You can almost set your watch by it. When dogwood flowers speckle the forests in spring, speckled bass (another name for crappie) move toward the shallows.

Missouri anglers come out in droves when crappie are “on the banks.” That’s because spawning season is the easiest time of year to collect a mess of these tasty panfish. Both bank and boat fishermen have a good chance to fill a stringer.

Crappie are the first panfish to spawn in Missouri. They generally start to nest when water temperatures reach about 56 degrees. As the water warms from there, nesting activity increases.

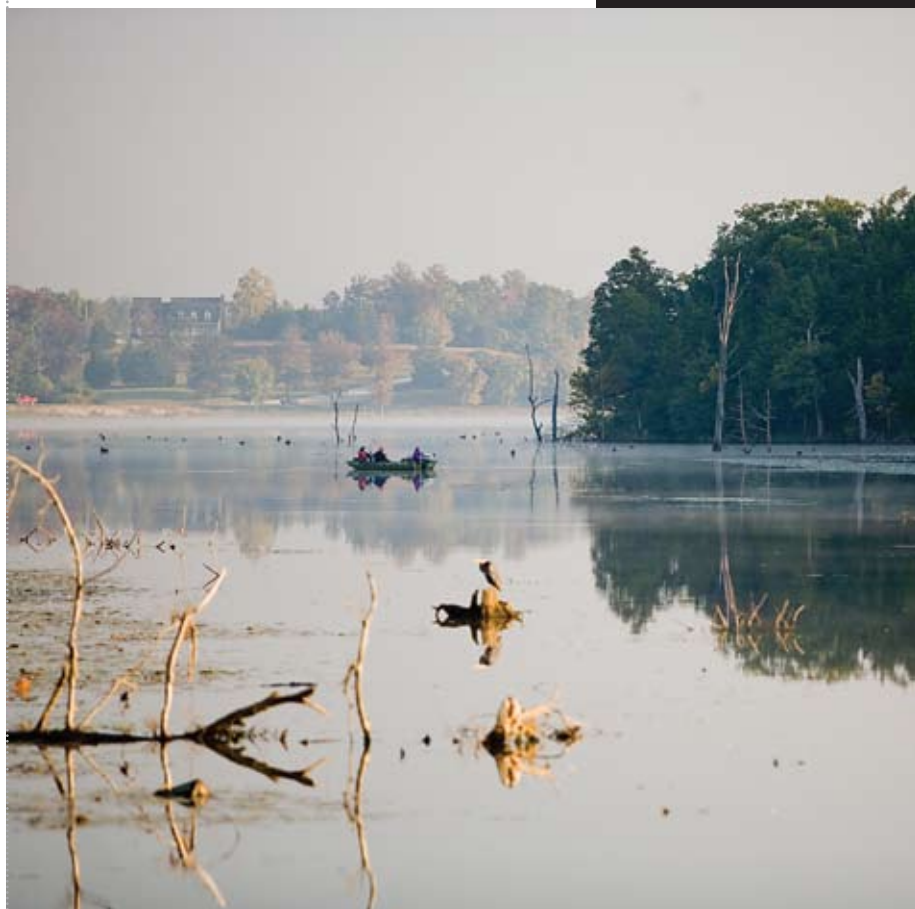
The fish prefer gravel nesting sites but will nest over a sand, mud or rocky bottom. Their nests are often found near submerged vegetation or near boulders or trees. Generally, the clearer the water, the deeper the crappie will nest. Spawning depths typically range from 2 to 10 feet, but sometimes crappies nest in water so shallow that you can see the water swirling as they move.

Crappie spawn in the same areas year after year, so check places you’ve found them before. They nest in groups and prime spawning areas continue to attract new fish. Search for new sites by casting a tiny jig or a minnow suspended beneath a small bobber along the shoreline. Crappie often “hit” just to defend their nests.



Community Lakes

Scout it Out



Name: Binder Lake

Location: West of Jefferson City and the Missouri River. Take advantage of all the recreational opportunities at your local community lake.

For more information: www.MissouriConservation.org/a6419



MISSOURI’S “GREAT” LAKES are the system of reservoirs on our state’s rivers. If you live near one of these angling meccas, count yourself fortunate. If not, you can likely find smaller—but still good—fishing lakes within just a short drive. In many cases, you’ll find one within your community. Since 1981, the Conservation Department has

worked with more than 80 Missouri communities to improve or establish local fishing opportunities. In most cases, the Department provides angler accesses and facilities and manages the fish populations in the lakes.

Binder Lake is on the west edge of Jefferson City. The community park and the 155-acre lake it surrounds draws anglers, hikers, sightseers and picnickers. In most community lakes, bass, crappie, catfish and sunfish are the primary fishing attractions. The biggest attraction, however, is the ability to take your family fishing when you only have a few hours to spare. Bank fishing and boat fishing are both productive. Find a community lake near you by calling your Conservation regional office at the number listed on Page 3.



Morel Dilemma

Keep your eyes peeled for mushrooms.

There's an art to hunting morels. Unlike hunting for deer or doves, you can't just find a comfortable seat and wait for your quarry to come to you. Good morelers—if we can call them that—log plenty of miles. They also know where to walk. Morels can grow almost anywhere, but they are more likely to be found in sandy soils and in woodlands and forests. They often grow near riverbanks and dead trees. A burned area is likely to contain morels the following spring. Cottonwood trees and old orchards also are prime hunting grounds.

Morels are fickle in that they don't always come up where you expect them, or even in the same places where you found them the year before. Some experts speculate they produce fruiting bodies only when the nutrients they need to grow become scarce or when the spreading underground structure encounters resistance, such as a path, riverbank or different soil.

As in all hunting, make sure of your quarry. Morels have look-alikes that can make you sick. Study field guides to learn to confidently recognize edible morels. Find more information about morel mushrooms at the Conservation Department's Web site at www.MissouriConservation.org/8361.



Morel mushrooms

Turtle Time

Give turtles a brake, but first make sure it's safe.

Spare the box turtle. You're apt to see many of them crossing the road in the spring, and their tough shell, which they rely on to shield themselves from predators, is no match for a vehicle that weighs more than a ton.

Most of the box turtles you see on the road are male. They are either immature males looking to establish a territory of their own, or mature males seeking mates. Some areas are turtle-rich, so where you see one, you're apt to see several.

Slow down and steer around turtles if it's safe. If there's no traffic, you can stop and gently help it to the other side of the road.

NATIVE BEAUTY



Bluebells

Find a Bed of Bluebells

IT'S PERFECTLY LEGAL and safe to let yourself become intoxicated with the delicate fragrance of bluebells, and in Missouri it's easy to indulge yourself. Bluebells, *Mertensia virginica*, are common throughout the state. They often grow in clusters—sometimes acres of them. Bluebells flourish this time of year, their pink buds exploding into clusters of restful blue, trumpet-shaped flowers.

Look for them in woodlands, particularly in valleys or in floodplains of creeks or rivers. The plants stand up to 2 feet tall. Their flower clusters seem to “nod.”

Bluebells, which are in the forget-me-not family, are also commonly called Virginia cowslip or, simply, Mertensia. Bluebells describes them best, however. When you look closely at one of the flowers, you can almost hear it ring.

These perennial natives make pretty landscaping. Sow seed in the fall to have spring wildflowers. Put them in a part of the garden that gets little disturbance so that you don't damage their small roots. Bluebell vegetation goes dormant in the summer as the plant's seeds ripen. Plant columbine, a later-blooming native plant, in the same area to have ground cover all during the growing season.

Learn when native flowers bloom at www.MissouriConservation.org/8372. For more information about landscaping with native plants go to www.grownative.org.



Protect Our Waters

Less is more when using lawn chemicals.

A lush green lawn is beautiful, but so is clean water. You can maintain both through judicious use of lawn chemicals. Remember, at least a little of everything you put on the ground eventually washes into streams, lakes and groundwater. Follow these tips to keep chemicals out of water.

- Test soil before fertilizing and apply only as much as necessary.
- Don't fertilize before a rain storm.
- Use organic fertilizers, which release nutrients more slowly.
- Use pesticides only when problems develop, not as preventatives.
- Substitute biological controls for chemicals.



Zebra mussels

Help Stop Zebra Mussels

Lake of the Ozarks is a sobering example.

The spread of zebra mussels from a single site at Lake of the Ozarks underlines boaters' and anglers' critical role in preventing ecological damage caused by exotic invaders. The fingernail-sized bivalves were documented at the lake for the first time in June 2006 near the 8-mile marker in South Buck Creek. They quickly spread throughout the lake's lower 8 miles and Gravois Arm. By 2008 the invasive mussels had moved up Lake of the Ozarks as far as the 18-mile marker and as far as 60 miles downstream in the Osage River from Bagnell Dam. No one is sure how

profound the prolific mussel's effects will be at Lake of the Ozarks. They can damage boat motors and other marine equipment, clog water intakes and smother native mussels. They also eat plankton, the same microscopic plants and animals that are the foundation of the food chain for bass, crappie, catfish and other aquatic animals. Visit www.MissouriConservation.org/8228 to learn how to avoid spreading these and other dangerous exotics.

Stream Team



Southwest Missouri Fly Fishers



THE NUMBER OF Missouri Stream Teams soon will reach 4,000. That means the program has spawned an average of 200 teams a year during its 20-year history. Stream Teams with numbers under 100 were pioneers in stream conservation. That certainly describes Stream Team No. 57, the Southwest Missouri Fly Fishers. In two decades of service, this team has conducted stream cleanups and water-quality monitoring to ensure the health of Crane Creek in Stone County. They also have enlisted the cooperation of several partner organizations to plant trees and stabilize eroding banks on a tributary of the nearby James River. Stream Team No. 57 continues to guard Crane Creek, world famous for its population of wild, naturally-reproducing rainbow trout. The group's activities have waxed and waned over the years, but its annual Super Bowl day stream cleanup has provided a nucleus around which these dedicated conservationists' efforts have always revolved.

Stream Team Number: 57

Date formed: July 20, 1989

Location: Crane Creek, Stone County

For more info about Stream Teams: www.mostreamteam.org



Our Glorious Forests

WELDON SPRING CA



Location: In St. Charles County, accessible from several parking areas along Highway 94, south of Highway 40/61

Habitat types: Mostly forest with old fields, cropland and some wetlands and glades

Features: Boat ramp (on the Missouri River), hiking trails, fishable lakes and ponds

Find more info: www.MissouriConservation.org/a7404



IF YOU'RE A birder, head to Weldon Spring Conservation Area in St. Charles County this spring. With more than 8,000 acres, a variety of habitat types, several access points and nearly 30 miles of trails, the area is a great place to add a few species to your life list. Habitat features include rugged limestone cliffs and bluff escarpments, as well as the Weldon

Spring Hollow Natural Area's 385 acres of upland and bottomland forest. The floods of 1993 and 1995 deposited sand over almost 1,000 acres of the area's river bottom, adding valuable breeding, foraging and nesting habitat for a variety of birds. Among the 188 bird species the Audubon Society of Missouri lists at the area are the worm-eating warbler, painted bunting and blue grosbeak. You can access Weldon Spring CA by car, bike, foot or boat. Visit www.MissouriConservation.org/19398 for a list of birds recorded at the area.

Arbor Day

Planting a tree is a great way to celebrate.

A good way to celebrate Missouri's Arbor Day, April 3, and National Arbor Day, April 24, is to plant a tree. But before you buy, visit www.MissouriConservation.org/15884. There you

will find help selecting the right trees for your growing situation, as well as guidance about putting them in the right place and planting them correctly. Starting with species that will thrive in your growing conditions and placing them appropriately will ensure healthy trees and years of benefits to your property.



Don't Miss Flowering Trees

New Web page tells when and where to see peak bloom.

Although we're accustomed to celebrating the annual show of fall color, Missouri's flowering trees of spring deserve as much fanfare. The sight of lacy, glowing serviceberry and redbud blossoms can banish the last of your winter blues. All trees produce flowers, but only a few of our native trees are showy enough to attract attention. Some of these are serviceberry, Eastern redbud, wild plum, red buckeye, flowering dogwood and hawthorn.

Our new Web page at www.MissouriConservation.org/8417 helps you

track these species' peak of bloom as it follows the rise of average daily temperature from south to north, and from lower to higher elevation. A good time to take a driving tour of these trees is during the last two weeks of April.





Begin Slow Draw-Down

Practice yields better habitat and fall duck hunting.

If you want more waterfowl on your wetlands this fall, start practicing slow draw-down now. A natural wetland loses and regains

water as seasons and weather change. You can emulate this natural ebb and flow by keeping

the soil moist throughout late spring and summer. This technique, called moist-soil management, mimics natural wetland cycles, and managers use

it to create diverse habitat for wetland plants and animals. For more details about practicing slow draw-down for better wetland habitat, visit www.MissouriConservation.org/7797.



Contractor Workshops

Training helps contractors specialize in habitat.

Many landowners want to implement habitat projects but lack the time, equipment or expertise. To help contractors serve this growing conservation market, the Department, in partnership with the Missouri Agribusiness Association, is offering Conservation Contractor Training workshops now through December 2009. The workshops, offered at various locations throughout the state, include a variety of topics, such as small business administration, conducting prescribed burns and satisfying federal conservation cost-share contracts. See the full schedule of topics at www.MissouriConservation.org/15805.

The \$15 fee for each workshop includes

lunch. Instructional approaches include hands-on fieldwork as well as classroom activities. To register, call 573-751-4115. Please note that

pre-registration is required; no registrations will be accepted at the sessions.



Wetland Conservation

On the Ground



ONE MOTIVATED BOOTHEEL landowner is making the most of his local conservation opportunities. Bill Cavins' land lies within the River Bends Conservation Opportunity Area (COA) in New Madrid and Pemiscot counties. A COA is a place identified by Missouri's comprehensive wildlife strategy where people can do the most good for the most kinds of habitat and wildlife. Bill is working with the Department, the Natural Resources Conservation Service and many other partners to restore wetland, hardwood bottom forest and rare sand prairie on his land. A key strategy in his team's approach is enrolling more than 7,500 acres into the Wetland Reserve Program. This program rewards landowners with cost-share and technical assistance for restoring wetlands. Although Bill is a businessman, he's also enthusiastic about bringing wetland plants and animals back to the River Bends COA. To learn about COAs, contact your regional conservation office (see Page 3).



Discover Nature—Women

Workshops give women a fun, safe way to learn.

Next experience doesn't have to keep women from enjoying Missouri's great outdoors. Get hands-on outdoor skills training at the Discover Nature—Women Summer Workshop, June 12–14, at the Windermere Conference Center in Roach. Formerly known as Missouri Outdoor Women (MOW), the Discover Nature—Women Summer Workshop continues the tradition of helping women learn popular outdoor activities, such as fishing, canoeing, archery and shooting sports. View a full schedule of offerings at www.MissouriConservation.org/13108. The

Discover Nature—Women Workshop is open to women ages 18 and older, but girls age 14–17 may also attend, as long as an adult accompanies them. The registration deadline is May 23, and a \$20 deposit is required at the time of registration. For more information or to register, contact Tracy Tomson at Tracy.Tomson@mdc.mo.gov or 573-522-4115, ext. 3808. Participants are responsible for making room and meal reservations with Windermere at 573-346-5200 or 800-346-2215.



Fun With Family and Friends

Register now for a 2009 Wonders of Wildlife School.

Want to have more outdoor fun with friends and family? Sign up for a W.O.W. National Outdoor Recreation and Conservation School. Five schools are scheduled throughout the state: Springfield April 24–25, Columbia May 1–3, St. Louis June 5–6, Kansas City Sept. 25–26 and Roaring River State Park Oct. 9–11. Cosponsored by a number of businesses, nonprofits and state agencies, including the Missouri departments of Conservation and Natural Resources, W.O.W. Schools cover outdoor skills, conservation, safety and ethics. For more information or to register, call 877-245-9453 or go to WondersOfWildlife.org.

NATURE ACTIVITY



NATURE ACTIVITY: NOPPADOL PAOTHONG; DISCOVER NATURE: CLIFF WHITE

Wetlands for Kids Day



HOW COOL ARE wetlands? Find out at the annual Wetlands for Kids Day at the August A. Busch Memorial Conservation Area in St. Charles. The Missouri Department of Conservation and Ducks Unlimited

have teamed up to host this event, which is sponsored by the Monsanto Fund. More than 20 demonstration and activities stations will give families and kids the chance to see live birds of prey, create wetland artwork, explore a beaver lodge, learn to identify waterfowl and other birds, tie fishing flies, and see and touch snakes, frogs and turtles. Be sure to sign the kids up for a free Ducks Unlimited Greenwing Membership, which includes a one-year subscription to the Puddler Magazine. For more information, contact the Missouri Department of Conservation at the August A. Busch Conservation Area (636-441-4554).


Where: August A. Busch Memorial Conservation Area
2360 Hwy. D, St. Charles, MO

When: Saturday, April 4, 10 a.m. to 3 p.m.

Who should come: Families, Scout troops, school and church groups

To register: This free event requires no registration.



A photograph of a fishing boat at sunset. The boat is dark-colored with a Mercury outboard motor. A fishing net is visible on the left side of the boat. The water is calm, and the sky is a warm orange color from the setting sun. The text "Imagine a pleasant place where all the residents have whiskers ..." is written in a serif font above the main title.

*Imagine a pleasant place where all the
residents have whiskers ...*

Catfish, MO

by TOM CWYNAR

Don't bother checking your map for Catfish, Missouri. There is no such town, and you might wonder why. After all, catfish are the second most fished for and the second most popular game fish in Missouri. Anglers like them because they grow larger than most fish, they aren't difficult to catch and they are scrumptious.

Missouri has three popular species of catfish: channels, blues and flatheads. All look like no other game fish in that they have fleshy barbels that will remind you of whiskers, a slick, scale-free, almost shaved look to their skin and spines that stick out of their dorsal and pectoral fins.

Each species is unique, however. Most noticeable is a difference in their sizes. The state records for channels, flathead and blues, respectively, are 34, 77 and 103 pounds. There are also differences in the fight, their markings and color, and the fins of each species that allow experienced anglers to easily identify what kind of catfish they've caught.

The Conservation Department manages Missouri's catfish with an eye to pleasing anglers. In fact, they've drawn up their Catfish Management Plan using input provided by catfish anglers through surveys and at public meetings.

When given reasonable protection by regulations, catfish usually are able to replenish their numbers. However, the Department has set bag limits on blue, flathead catfish and channel catfish. Anglers can use rods and reels, trotlines and limblines and various other means of presenting bait to fish. Anglers generally believe that channel catfish are drawn to stinky dead bait, while flathead catfish almost always prefer their meals fresh and live, and blue catfish have tastes that fall somewhere in between.

Surveys have shown that what catfish anglers most want is an opportunity to catch nice-size fish. Delving into the survey responses, the Department learned that more anglers would prefer to catch four 5-pound catfish than 10 2-pound catfish.

They weren't just after trophies, however. The catfish anglers also preferred catching those four 5-pounders to catching two 10-pounders or one 20-pounder. Like many anglers, they aren't greedy, but they do like it when their fish have some heft to them.

There is no closed season on catfish. Because catfish reproduction absolutely requires the presence of adult fish to guard and care for the eggs and young, some protection would seem logical. However, catfish lifestyles help them protect themselves.

Parenting Skills

Many game fish, such as white bass and crappie, pump out eggs by the gazillions. Their reproductive strategy, if you



While most Missouri anglers aren't just after trophies, they do appreciate catching decent-size fish, like this flathead catfish caught on a trotline.

want to call it that, is that if only a few of the many survive, they've accomplished their mission.

Catfish lay relatively few eggs. A 20-pound catfish, for example, might generate fewer than 10 percent of the number of eggs produced by a 2-pound white bass. You might think that the percentages would work against the catfish, but these species increase the survival rate of their eggs and young by diligent parenting.

Catfish nest in underwater cavities, such as in depressions in stream banks, in hollow logs or beneath root wads or log jams. While these afford some natural protection from egg predators, catfish also aggressively guard their nests from egg-eating amphibians, reptiles and other fish.

Female catfish might stay at a nesting site for only a half a day or so, but males won't leave the eggs until they hatch—in about a week. During this period, which for most catfish occurs in June or July, the male catfish keeps the eggs oxygenated and clean by repeatedly swishing their



CLIFF WHITE



ALLEN BRANDES

Healthy 3-day-old eggs where parent fish were left undisturbed on nest during study.



ALLEN BRANDES

Three-day-old flathead catfish eggs infected with fungal disease after parent fish were removed from the nest during study.

tail fin over them. After the eggs hatch, the males remain with the young for another week or so, until they disperse.

This reproductive strategy is so unusual among fishes that the Conservation Department studied catfish parenting. Department staff encouraged pairs of catfish to spawn in shelters placed in a hatchery raceway where there was flowing water. This simulated the cavity nesting of catfish in a Missouri stream.

After the eggs were laid, they removed the parent fish from some of the nests and left other nests undisturbed. The results were startling. Within hours after the nests' guardian fish were removed, a fungus known as a water mold colonized the egg masses and began spreading. Within 12 hours, all the eggs in the nests with no parents were dead. Each of the eggs in the unguarded nests had myriad wavy filaments growing out from them so that they looked like tiny moldy muffins.

In 2007, the Department conducted several information meetings around the state to discuss the reasoning behind catfish management practices and regulations with citizens. The meetings also provided an opportunity to answer questions and gauge public opinion.

Of the nests left undisturbed, 60 percent produced viable eggs. It was clear that catfish eggs cannot tolerate removal of the attending parent.

Fortunately, catfish that are guarding nests aren't very vulnerable to anglers. The catfish won't leave their eggs even to feed, and it would be extremely difficult to put a bait in front of them.

At Odds

There is a kind of catfishing, however, that doesn't require bait. It's sometimes called noodling, grabbing, hogging or hand fishing. Maybe you've seen it on TV. People reach down into a secluded nest and grab a catfish parent by the mouth or gaff it with a big hook and pull it out. The aggressively protective catfish makes grabbing it easy because it'll clamp down on anything it thinks threatens its eggs.

Several states, most of them in the southern U.S., allow hand fishing for catfish. The practice was banned in Missouri in 1919 with the same law that made it illegal to capture fish by dropping rocks or logs on them.

Unlike many of the states where hand fishing is legal, Missouri manages catfish as game fish, which means not only that hand fishing for them is not allowed, but also that



DAVID STONNER



Conservation agents removed illegal artificial nestboxes that people had placed in Truman and Montrose lakes.

IN PURSUIT OF NOODLERS

Hand fishing has been illegal since 1919, and yet there are people in Missouri who continue to grab catfish by hand. This activity is not confined to small streams. When a recent drought lowered water levels at Montrose and Truman lakes, anglers reported finding noodling boxes, which are artificial underwater cavities made to attract nesting catfish. Conservation agents watched the boxes and arrested several people using them for hand fishing. They removed the boxes after the spawning season.

Don't let people acting illegally take away your opportunity to catch big catfish. Report hand fishing or suspicious equipment, such as sunken tires, cable spools, bathtubs or water heaters, that you find in our lakes or streams. Program the Operation Game Thief number, 800-392-1111, into your cellphone so you can call while you are on the water. The line is active 24 hours a day, and you may even be eligible for a reward.

catfish may not be speared, snagged, shot with arrows or netted. Hand fishing has been illegal in Missouri for 90 years, so those who argue that a tradition of hand fishing remains in the state seem to be on shaky ground.

The Department allowed an experimental hand fishing season on portions of the Mississippi and St. Francis rivers and a stretch of the Fabius River starting in 2005. They collected data on hand fishing and studied catfish populations on the kinds of rivers where hand fishing, if legal, would likely take place. Angler and hand-fisher surveys, as well as the raceway study with the disturbed and undisturbed nests, were part of their efforts to learn what might happen if they were to legalize hand fishing statewide.

In April 2007, the Department rescinded the experimental hand fishing season after several studies indicated that legalizing the practice would be at odds with the Department's management of the state's catfish populations.

The Problems

Removing a catfish parent from its nest dooms the eggs and the young they would produce, as well as the young that fish and its progeny would produce in future years. Even if the parent catfish is returned to the water, the eggs will almost certainly be damaged or dispersed by the fish's struggle.

Another problem is that hand fishing has the potential to deplete streams of nearly all of their large catfish. The densities of large catfish in Missouri streams are low. Only 1.7 percent of nearly 29,000 flathead catfish sampled from 2005–08 were longer than 36 inches. There are only so many

potential catfish nesting sites, and an experienced hand fisher can check most of the holes, jams or root wads in a long stretch of stream in a day. If the hand fisher discovers a catfish, out it comes. Few fish would be spared, and long stretches of stream would experience no reproduction.

Legalizing hand fishing would almost certainly add to the number of hand fishers and the number of fish taken. Hand fishers surveyed by a University of Missouri researcher said the minimum size catfish they would catch and keep was 17.5 pounds for flatheads, 12 pounds for blue catfish and 6 pounds for channel catfish, and that flatheads were their preferred quarry more than 85 percent of the time. Growth rates vary, but it takes flathead catfish more than a dozen years to grow to that size, and catfish in those size ranges represent only a tiny percent of the total catfish population.

The math argues that Missouri's small streams, where 90 percent of hand fishing takes place, would soon be devoid of large fish. Catfish anglers who use traditional bait, hook and line methods to harvest fish wouldn't have much luck. What's more, our stream ecosystems would suffer because large flathead catfish help control populations of less desirable fish, such as carp.

It is unlikely that large catfish might be replaced by those moving up tributaries from the Missouri and Mississippi rivers. Flatheads are generally stay-at-home fish. In a 2006–07 study of catfish movements, 25 percent or fewer of the catfish implanted with radio transmitters moved from the Missouri River into tributary streams. When they're gone, they're gone, and so is the whole idea of a pleasant little place called Catfish, Missouri. ▲



GOING SOUTH

MISSOURI'S RAINFOREST CONNECTION—OUR BIRDS IN THE TROPICS

by KELLY R. GILLESPIE

I will never forget May 5, 2006. For birders, the first week in May is Peak Week. It's when birds return from where they have spent the winter and the optimum time to see songbirds that have been absent for the past eight months. Brad Jacobs, Conservation Department ornithologist, made a presentation on Neotropical bird migration to our local Audubon chapter in Kansas City. His opening remarks were beyond belief.

Brad told us that every year an estimated 11 billion birds, about 450 species, fly from the United States and Canada to the tropical habitats of Mexico, Central and South America, and the Caribbean. North America's songbirds, raptors, and even some ducks, spend eight months in places like Honduras, Ecuador and Argentina. This means that, because "our" birds spend so much of their time elsewhere, no conservation measure can be effective without addressing the habitat quality in those other countries.

A Baltimore oriole winters in Central America.

Many Neotropical birds have experienced extreme population declines since the '60s, when the Breeding Bird Survey first started keeping track of population trends of all bird species. In many cases, present day songbird populations are now at half of their 1965 populations. For example, today there are an estimated 14 million wood thrushes in North America, while only 40 years ago there were 28 million.

I am a career teacher and have taught environmental science concepts. I've also been an Audubon member for more than 10 years. Yet Brad's information was staggering to me. Our group formed an International Conservation Committee to address these issues, and I happily accepted the role of chairwoman.

OUR SHARED TREASURE

Imagine billions of birds following a skyway highway, flying back and forth between the tropics and our backyards. From their overwintering grounds to their nesting sites, some will fly 1,500 miles, at 13,000 feet altitude, at night. Many make the straight shot over the Gulf of Mexico—a 20-hour, nonstop, 600-mile flight. In a 10-year life span, they will have flown 30,000 miles. That's quite a feat when, in the case of the cerulean warbler, you weigh about 9.3 grams—or about 3-4 pennies. Some birds can lose up to 50 percent of their body weight in the flight across the Gulf of Mexico.

Picture our familiar, “local,” birds in the tropics, little jewels of flashing color among the branches of tropical trees and shrubs. Ruby-throated hummingbirds, rose-breasted grosbeaks, Baltimore orioles, indigo buntings, scissor-tailed flycatchers and Tennessee warblers—all find safe haven in the remaining forests and other more open habitats of tropical America during the winter. There,

they feed on a bountiful variety of tropical insects and the forests' fruits—mango, guava and papaya.

Have you ever wondered why Missouri's Baltimore orioles love grape jelly so much? It's because they've been eating the soft, sweet, fruity-fruits of the tropics all winter. While on their overwintering grounds, you might see 20 orioles in one tree, a flock of 100 Tennessee warblers foraging along the forest edge, or hundreds of scissor-tailed flycatchers leaving their night roost to spend the day foraging for insects in the countryside.

But these living gems are treasures in the midst of a complex world. Latin America's abundance of natural riches is in direct contrast with the poverty of the people who live off the land, raising most of their own food. Central America has been changing from independent farming to large-scale agriculture and non-sustainable timber harvesting. The population of Latin America and the Caribbean during the next 40 years will increase by 100 to 350 million people, putting added pressure on an already stressed land.

Coffee that was once planted in the shade of the rainforest canopy can now be grown in full sun, thus allowing the clearing of the overstory forest. Pineapple, oil palms and organic banana fields are popping up in lowland areas to supply burgeoning world demand. These changes weigh heavily on the survival of birds and other species in one of the most biologically rich regions of the world. Losing just 1 acre of tropical habitat for wintering migrants is equal to losing 8 acres of North American nesting habitat.

FORMING ALLIANCES

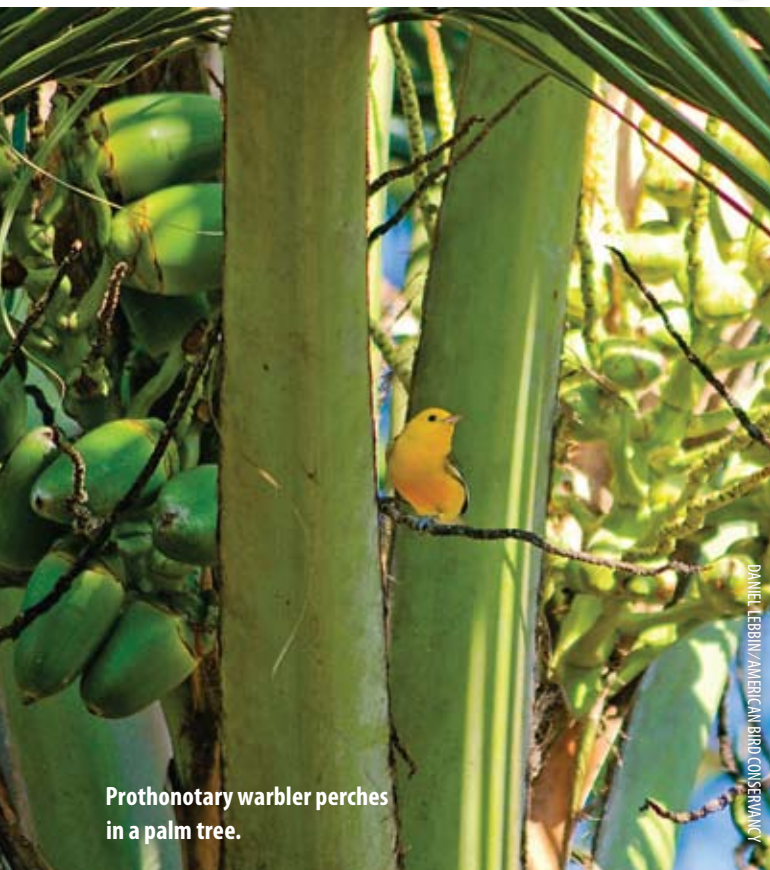
Since 2007 I have worked with Brad Jacobs and Audubon chapter leaders creating the Avian Conservation Alliance of the Americas, also known as Alianza para la

Headed South

Habitat loss on breeding and wintering grounds is the overarching reason for bird population declines.

Painted Bunting	9 million to 4.5 million (50% decline)	Overwinters in Mexico, Central America and West Caribbean
Grasshopper Sparrow	68,000,000 to 15,000,000 (78% decline)	Overwinters in Mexico and Central America
Wood Thrush	28 million to 14 million (50% decline)	Overwinters in Central America
Chimney Swift	27 million to 15 million (44% decline)	Overwinters in Peru
Cerulean Warbler	710,000 to 560,000 (25% decline)	Overwinters in Andes

Information obtained from 40 years of data from the North American Breeding Bird Survey Web site at www.pwrc.usgs.gov/bbs.



Prothonotary warbler perches in a palm tree.

DANIEL LEBRIN/AMERICAN BIRD CONSERVANCY

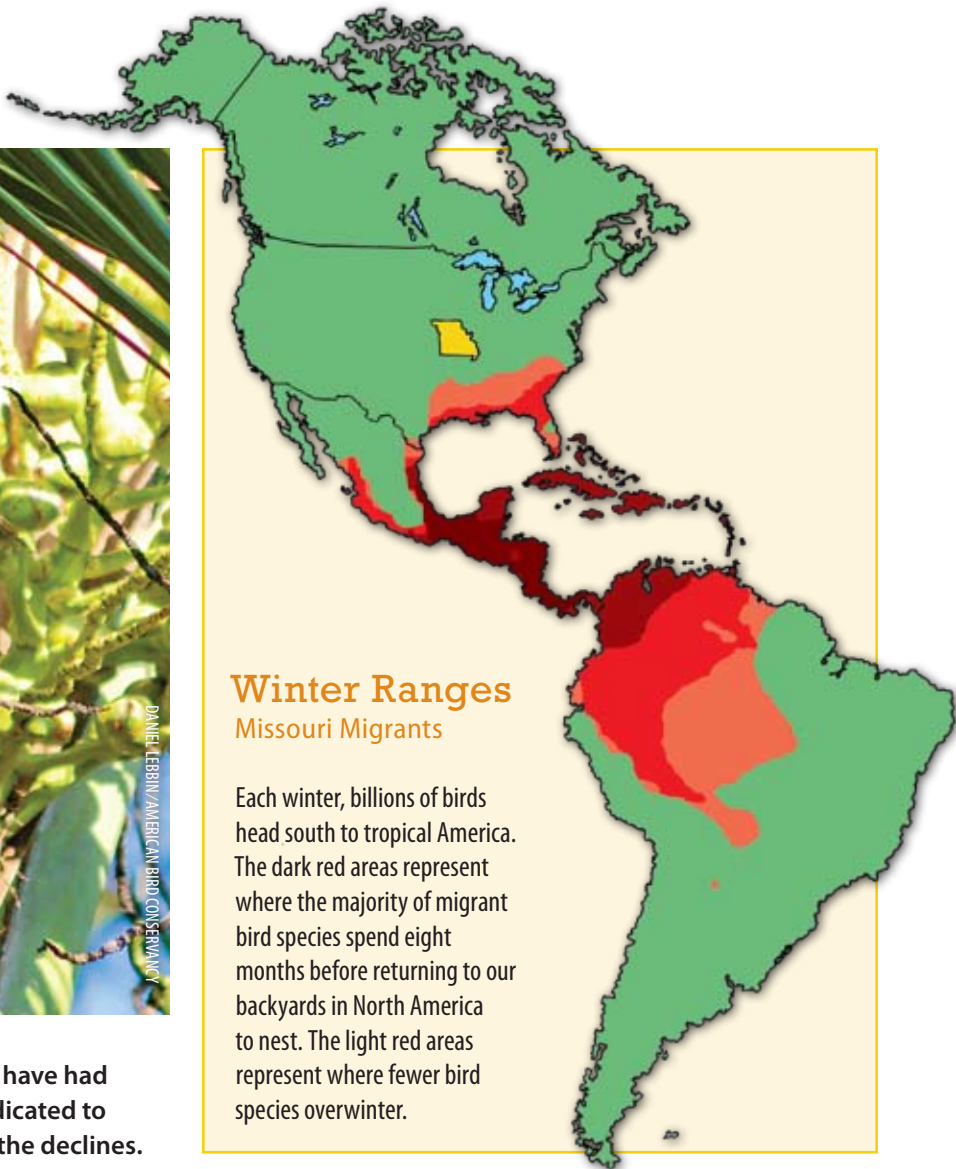
Many Neotropical migrant bird populations have had extreme declines since the '60s. ACAA is dedicated to protecting tropical habitats to help reverse the declines.

Conservación de Aves de las Américas. ACAA, a citizen conservation alliance, is a partnership dedicated to protecting land in Central America.

Pico Bonito National Park and the Honduran Emerald Reserve in Honduras are areas ACAA currently supports. Pico Bonito is the second largest national park in Honduras, approximately the same size of my hometown, Kansas City. These areas are home to many of Missouri's migratory birds and are critical for their winter survivorship.

Without a healthy environment to live in for eight months, the birds will not be fit enough to return early to their northern nesting sites, or healthy enough to raise their young. Good fitness levels have a positive affect on survival and reproductive success.

In ACAA's first year, Audubon chapters raised more than \$18,000. Through our state and national match grant system, ACAA raised more than \$162,000. Our work is primarily focused on land acquisition and habitat restoration, but we also help with capacity building, skill-training, education, eco-tourism development, research and moni-



toring. Our first year's fundraising efforts will be used to help with land purchases bordering Pico Bonito National Park and the Honduran Emerald Reserve, which is located in the buffer zone that surrounds the park. Some of this area has been seriously degraded and will require replanting of native tree species from a nursery established by our Honduran partners.

ACAA will be instrumental in helping Honduran conservationists establish a national-level workshop in Honduras for designating Important Bird Areas. Important Bird Areas identify areas vital to birds. Honduras is the last country in Central America to begin the IBA process. IBAs will help the people of Honduras focus their conservation efforts on the most important habitats for birds. Honduras has the highest percentage of natural forest habitat remaining in pristine condition, with about 46 percent of the pre-development habitat left in Honduras.

ACAA also is creating a link between nature centers in Missouri and nature education centers in Honduras. This summer we hope to bring a naturalist from Honduras to

Start small, think BIG:

Everyone can help to reverse the decline of our migratory birds.

- Use decals or sun catchers on windows. 100 million to one billion birds are killed each year in collisions with window glass. Bird strikes on windows is the number one man-made killer of birds. Read Cornell Lab of Ornithology's article *Make Your Windows Safer for Birds* at www.birds.cornell.edu/Publications/Birdscope/Summer2008/window_screening.html for more ideas.
- Keep cats indoors. Cats kill an estimated 500 million birds each year. Check out the The American Bird Conservancy's Cats Indoors! campaign at www.abcbirds.org/abcprograms/policy/cats for more information and tips on how to "Make your outdoor cat a happy indoor cat."
- Make your backyard "bird-friendly." Keep a pesticide-free habitat using native plants and provide birdseed and fresh water.
- Celebrate International Migratory Bird Day in your area. While officially held the second Saturday of May each year, events and festivities often depend on location. For More information on IMBD, visit www.birdday.org or contact your local Audubon chapter.
- Get out and go birding! Share your enthusiasm with the people you know and the businesses you patronize. Tell them the cool things you saw in their area and how important it is to protect habitat. Leave a birding calling card at www.bluebirdnut.com.
- Learn more about the Avian Conservation Alliance of the Americas at www.birdconservation.org or by calling 573-751-4115 ext. 3648. Contributions to the Missouri Tropical Bird Account are gratefully accepted through the Missouri Conservation Heritage Foundation at PO Box 366, Jefferson City, MO 65102-0366. Visit www.mochf.org or call 573-634-2080 or 1-800-227-1488 for more information.

Pico Bonito (Beautiful Peak) National Park in Honduras has a variety of tropical forest habitats.

attend a Conservation Department workshop, bringing our international partnership together. This collaboration will help foster an exchange between personnel and eventually technology for the children who live within the community of Pico Bonito.

ACAA is based on a leveraging concept of matching funds. Audubon chapters raise funds that are contributed to the Missouri Conservation Heritage Foundation. Funds are matched four times by partner agencies, non-governmental agencies and foundations to further leverage. Once the funding targets are met in Missouri, they are transferred to national partners who double the funds through donations or a grant proposal to the Neotropical Migratory Bird Conservation Act. Ultimately an eight-fold increase in funds will reach Pico Bonito National Park in Honduras. Or simply put, every \$10 contributed to ACAA will become \$80. Because of our system, the opportunity to make a difference is substantial.

Our long-term vision is to work within the Meso-American Biological Corridor, which is a 30-year landscape design effort underway throughout Central America. This forward-thinking plan is currently identifying important areas for wildlife and protecting those areas by creating a connected contiguous green beltway of protected areas from Northern Mexico to Panama. By preventing habitat and landscape fragmentation, plants and all wildlife will be able to reproduce and roam naturally without being trapped in small pocket parks or losing habitat altogether.

As bird-lovers, nature enthusiasts, scientists, and watchers of backyard bird feeders, we need to help the local people in Latin America, who also love birds, to protect their national natural treasures and ensure Missouri's songbirds thrive.

It has been my privilege spending the past year in my role as chairwoman of ACAA, working with the Department and Audubon chapters to develop an organization that can be a voice for bird conservation, but our work has just begun. The futures of many species of birds found in North America are in jeopardy. Our mission is to protect the tropical habitat where our birds spend the winter and become a force to reverse the decline of our Neotropical migratory birds. Our hope is to keep the birds we love so much coming back to our Missouri backyards. ▲

Shade-Grown Coffee

A new variety of coffee plant has been developed that can grow in open sunlight instead of the shade of canopy trees that once were part of the natural forests. Shade-grown coffee grew in relative harmony with many bird species and produced some of the best tasting coffee in the world, especially that grown at higher elevations in the mountains. Sun-grown coffee eliminates the need for overstory trees, so many are being cut and sold for lumber, thus eliminating the habitat for most birds. For more information, visit the Rain Forest Alliance's Certified Coffee page at www.rainforest-alliance.org/coffee or the Seattle Audubon Society's Northwest Shade Coffee Campaign at www.shadecoffee.org.

Without
a healthy
environment
to live in for
eight months,
the birds
will not be
fit enough
to return
early to their
northern
nesting sites,
or healthy
enough to
raise their
young.



Wood thrush

JIM RATHERT





TO CALL OR NOT TO CALL

Knowing when to talk turkey and when to be silent is an important part of successful turkey hunting.

by MARK GOODWIN photos by NOPPADOL PAOTHONG

I wrapped a tag on my first spring gobbler in 1980. A high-school student of mine, from a long line of turkey hunters, and woods-wise far beyond his years, called in the 22-pound tom. That hunt spawned an obsession. Every year since I have hunted almost every day of both spring and fall seasons, until my tags were filled or the seasons came to a close. Even with only 45 minutes or so to hunt before work, I'd be in full camouflage somewhere, in hopes of luring in a longbeard.

I've chronicled every turkey hunt in a journal, recording both successes and failures. Failures predominated in my early hunts, but I made a point of learning from my errors. Over the years, I also made a point of listening when veteran turkey hunters talked turkey. I learned much.

Part of what I learned concerns calling. You don't have to call like a competition caller to consistently fool turkeys, but you do have to know when and when not to call. Here's a summary of what close to three decades has taught me concerning this facet of turkey hunting.

DON'T CALL ...

- *At first light when nothing gobbles.* I will always remember the hunt when I learned this lesson. The morning broke clear with still winds, perfect for toms to sound off, but none gobbled. Having spent long hours gaining proficiency with turkey calls, I was eager to put my calling skills to practice. At first light, I made some light tree calls on my diaphragm caller—clucks and soft yelps. They sounded good to me! Minutes later, I increased the volume. Then I moved to my box call in an attempt to sound like two hens. At fly-down time I cut a few times on my diaphragm, then made a fly-down cackle. I finished with a series of calls meant to sound as if the two hens were getting together on the ground. I thought I had produced a turkey-call symphony. What I had really done was wise up three gobblers roosted 50 yards behind me in large white oak. They had listened to every call—and watched me make them.


I first became aware of these toms when one sailed out and flew directly away from me. The other two soon followed. They learned well, because I failed to work any of them into shotgun range that season. They gobbled in the roost on other days, but they never answered my calls. I had educated them. To avoid this problem, when turkeys don't gobble, don't call until 30 minutes after fly-down

time. This reduces the chance of unwittingly educating roosted turkeys to your calling.

- *At first light when real hens are roosted close around you and calling.* In this situation, you have little to gain by calling. You have real hens around you. Gobblers in the area probably recognize their individual calls. Let the hens pull a gobbler to you. If you call, chances are good the hens will see you and exit the area when they fly down.

What you want are those hens sticking around you when they fly down from roost. Then you have live decoys. When they fly down, it may pay to call in an attempt to hold them in your area. Other than that, it's best to keep quiet.

- *During the quiet time.* Gobblers in spring are far from predictable. But they do have routines. Often, they gobble in the roost. When they fly down, they gobble some more to attract hens. With hens in their vicinity, they go quiet—little to no gobbling. This time usually extends for two to three hours in the morning. You can call to the gobblers during this time, but often it's of no use. This quiet time in the morning is typically the time for a hunter to also be quiet. Sitting in one place and calling periodically at this



Toms typically take their time coming to a call—maybe 30 minutes to an hour.

time does not mimic what the turkeys are doing. The hens aren't calling. The gobblers aren't gobbling, so do as the turkeys are doing. Be quiet.

The quiet time is a good time to take a nap. If you have hunted hard for several days in a row, a nap will be welcome. What of walking and calling at this time to try and get a tom to gobble? Most likely toms are not going to gobble at your calls, and walking about you are likely to spook turkeys you never knew were there. Take your nap. At 9:30 a.m. or so, start calling again. If you have done your scouting, and you are in an area that you know turkeys are using, best results come from sitting and not moving.

- *After a gobbler has answered your calls.* When a gobbler has answered your calls, you have done your work. You've convinced the tom you are a hen, and he is interested. Now, your next step: sit quietly and wait. Easy? Far from it. You want the tom to walk up within easy shotgun range—now. Seldom does it work this way.

Toms typically take their time coming into a call. It may not be all that long: maybe 30 minutes to an hour, but that seems a long time when you're sitting there with a shotgun on your knee, expecting a gobbler to appear at

It's as though a little gremlin materializes on your shoulder and whispers urgently in your ear: *Call! That tom may be walking away. Come on, call! You need to determine where that gobbler is!* Ignore that gremlin.

any moment. When the tom doesn't appear right away, the tendency is to call again. It's as though a little gremlin materializes on your shoulder and whispers urgently in your ear: *Call! That tom may be walking away. Come on, call! You need to determine where that gobbler is!*

Ignore that gremlin. Often, more calling simply encourages the gobbler to stay put. He'll wait for the hen he is hearing to come to him. You want the gobbler to come looking for the hen. To encourage this response, don't call again. A 2-year-old tom will often gobble plenty while you make no calls. When he goes silent, it's time to be alert. Often the gobbler is approaching.



For the perfect shot, look to where you want the turkey to stand before you shoot. When the turkey arrives, make one last call to stop him.



MAKE YOUR CALLS ...

- *When a gobbler is gobbling from the roost at first light.* Call once—and lightly. Within 60 to 150 yards from a roosted tom, you make one call to let the tom know you are there. Then go silent. If he doesn't answer your call, no problem. Often, toms don't. Your job now is to wait and not make a sound.
- *When a gobbler flies out of the roost.* If you like making lots of calls, now is the time. Listen for the tom to

fly down from the roost. As soon as you think his feet are on the ground, call to him with some short, snappy yelps. If he gobbles at that, give him some more. If he doesn't, switch to another call. Maybe a box call or a slate will do the trick. The point is to get the tom excited and make him gobble—lots. Get him to the point where he gobbles several times without a break. Hunters call it double and triple gobbling. Then go silent. Again, your strategy here is to entice him to come looking for the hen he heard.



If a tom fails to answer your calls, there could be several explanations. Your calling might need improvement. Something could have spooked the gobbler. Or you are dealing with a gobbler that seldom answers calls. Some toms are like this. Often, they are older birds. They still might work in to calling, but often they do so silently, and it might take hours.

- *When you have competition with hens.* This is a common problem for turkey hunters. A gobbler answers your

calls eagerly, both in the roost and when he flies down, but hens quickly join him. A gobbler with three or four hens around him is tough to budge. His interests are satisfied. But there is a possible answer to this problem: try to call in the hens. If you call in the hens, the gobbler might follow.

Hen turkeys, like jakes and gobblers, have a pecking order—a sense of who is boss. If your calling functions to confront the dominant hen, she might come in to challenge the upstart, with the gobbler in tow. What calls work to prod a dominant hen? Loud, aggressive calls work best. If a hen answers back, cut off her calls—call before she is finished making hers. If she approaches, be ready. The tom might not be far behind.

- *To draw in another gobbler after the shot.* Sometimes more than one gobbler comes into your calling. If you are hunting with a buddy, and two toms work into range at the same time, you both might walk out of the woods totting turkeys. But often, when two or more birds work in, one comes within range before the others. In this situation, directly after the shot, loud, aggressive calling might settle the other birds down and quickly draw them in. Turkeys typically don't associate gunfire with humans. It's simply a loud noise. Immediately after the shot, loud, aggressive calling, simulating a turkey fight, will sometimes draw another tom back into shooting range.

- *To stop a gobbler and make him stretch to look.* When everything works as it should—a gobbler answers your calls and approaches to within good shotgun range—you need an ideal shooting opportunity. That's a gobbler standing still, in the clear, looking with neck stretched. Shooting at a tom while it is walking is a bad idea. While tracking a walking turkey as you look down your shotgun's barrel, it's easy to overlook brush that might ruin a shot pattern. Moreover, as a turkey walks, it bobs its head, making that target far easier to miss. For the perfect shot, you look to where you want the turkey to stand before you squeeze the trigger. When the turkey arrives at that point, you make one last call—a loud putt or alarm call to stop him.

EVERY HUNT IS UNIQUE

The calling tips shared in this article are important turkey-hunting principles. Yet with turkey hunting, seldom does a principle always apply or prove infallible. Turkey hunting plays out with seemingly limitless variation in hunting situations. Through experience—time spent in the turkey woods—you learn to modify hunting strategies to accommodate these situations. It's one reason why turkey hunting offers a lifetime of challenge and fascination. ▲

Hunting and Fishing Calendar

FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/23/09	2/28/10
impoundments and other streams year-round		
Bullfrogs and Green Frogs	Sunset	Midnight
	6/30/09	10/31/09
Nongame Fish Snagging	3/15/09	5/15/09
Paddlefish	3/15/09	4/30/09
Paddlefish on the Mississippi River	3/15/09	5/15/09
Trout Parks	3/1/09	10/31/09

HUNTING

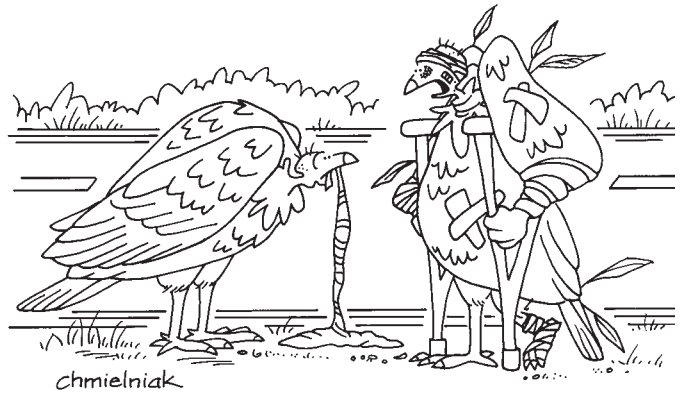
	OPEN	CLOSE
Coyotes	5/12/08	3/31/09
Crow	11/1/08	3/3/09
Deer		
Firearms		
Urban	10/9/09	10/12/09
Youth	10/31/09	11/1/09
	1/2/10	1/3/10
November	11/14/09	11/24/09
Antlerless	11/25/09	12/6/09
Muzzleloader	12/19/09	12/29/09
Groundhog	5/11/09	12/15/09
Light Goose Conservation Order	1/31/09	4/30/09
please see the backcover of the <i>Waterfowl Hunting Digest</i> or download the PDF at www.MissouriConservation.org/777		
Squirrels	5/23/09	2/15/10
Turkey		
Youth (resident only)	4/4/09	4/5/09
Spring	4/20/09	5/10/09
Fall	10/1/09	10/31/09
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see www.missouriconservation.org/7573	

TRAPPING

	OPEN	CLOSE
Beaver and Nutria	11/15/08	3/31/09
Otters and Muskrats	11/15/08	see <i>Wildlife Code</i>

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit www.MissouriConservation.org/8707 or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlife.license.com/mo/.



"Who knew 'possums played dead?!!"

Contributors



TOM CWYNAR is a writer/editor for the *Conservationist* who often writes about fishing Missouri waters. Tom said he has a variety of interests, but that he generally likes the outdoors more than the indoors and activity more than passivity. He is currently trying to teach his new little white boat to catch fish.

KELLY GILLESPIE discovered her love for nature when she moved to the country after growing up in the city. She finds great happiness in her 4-acre backyard, filling feeders and keeping the birdbath clean for the 80 species that stop by. Kelly shares her passion for the outdoors as an educator, teaching about conservation.



Both spring and fall turkey seasons find MARK GOODWIN afield. "I tagged my first turkey during fall of 1979," he says, "and that spawned an obsession." Since that hunt, Mark has not missed a Missouri turkey season. He looks forward to sharing the excitement of turkey hunting with his three grandchildren.

TIME CAPSULE

April 1979

Outdoor Edibles—*Water Cress* was written by Wendell Jeffery about a floating creeping herb plant that is found growing in shallow, clear, cool spring branches. This water cress plant is edible and has more vitamin C than spinach. It is a member of the mustard family that has a “distinctive peppery mustard taste.” The leaves and stem tips can be eaten raw in sandwiches and salads or cooked in soups or as a vegetable. Growing water cress has become a large commercial enterprise for restaurants, which use them as a garnish. When picking, gather near clean streams and rinse stems and leaves to remove any small aquatic larvae or grit. Halazone tablets are recommended for cleaning.—*Contributed by the Circulation staff*



Outdoor Edibles — **WATER CRESS**

By Wendell Jeffery
Editor, Missouri
Naturalist
Naturalist to the People

WATER CRESS, *Nasturtium officinale*, is commonly found growing in cool, clear spring branches. Look for it near the source of a spring, with most of the plant above the shallow water. A member of the mustard family, water cress has leaves, which are divided with rounded leaflets opposite each other. Billy Joe Tatum, in his 1944 book *Crabapple in the Garden*, describes the plant as “a creeping and floating herb with small, first, first leaves growing along its slender stems and every branchlet that makes it appear to grow in clumps.” Flat white flowers bloom at the top of the stems.

Because water cress is a member of the mustard plant group with a distinctive pungent, mustard taste, the young tender leaves and stems can be eaten. Truly, a home plant, water cress—small, most grows—can be gathered and prepared for the table throughout spring, summer, fall and winter. The tender young stem tips and leaves can be eaten raw in salads and sandwiches, or cooked as a vegetable or in soups. This concrete mustard adds a healthy dose of vitamins for adults and as a garnish for meats. Water cress and pods grow in almost any body of water. These small, like pods are hairy, too, when still tender. Growing water cress for the market is a large commercial enterprise in some parts of the world today. A great food plant, water cress has more vitamins C than spinach.

The only precautions in preparing water cress for the table are first, gather it from a clean stream and second, to rinse the leaves and stems well to remove any grit and small aquatic larvae. Washed cress, in his book *Crabapple in the Garden*, suggests preparing a small batch of halazone tablets from a spring grade of drug store.

Then cook the well-washed water cress for one-half hour in water containing one or two of the halazone tablets. Then first, water cress should be eaten, or about the equivalent, then on the table before you buy and store the second batch in a dish, dry place with the bottle tightly capped until the next use.

In addition to its use as a pot herb cooked in, delicately or mixed with other favorite greens in a small amount of butter, butter, oil, and cream, water cress is also eaten.

Water Cress Recipe: Beat together 1/2 cup dry cress water cress, pinch of salt, 1 tablespoon cold water and 2 eggs. Pour the mixture into a heated frying pan containing 1 tablespoon of butter. Brown both sides, and remove while still creamy. Frying!

Water Cress Recipe: Beat together 1/2 cup dry cress water cress, pinch of salt, 1/2 cup of finely chopped or ground water cress. Season 1 teaspoon in cream or butter. Beat until smooth, adding 1 cup of cream. When hot, top with some shredded paprika and fresh sprigs of water cress.

Water Cress Recipe: Beat together 1/2 cup of water cress, 1/2 cup of finely chopped or ground water cress. Season 1 teaspoon in cream or butter. Beat until smooth, adding 1 cup of cream. When hot, top with some shredded paprika and fresh sprigs of water cress.

A favorite springtime remedy for this time has come on the family gathering some mustard and tender water cress stems and leaves, adding green onions, radishes and lettuce from the early garden, and eating the mixture with hot brown gravy. Sprinkled with brown bits, this salad is fit for a king.



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AGENT NOTES

Spring is a great time to get outside and fish for crappie.

FOR MANY, FISHING is a favorite pastime and warmer days welcome anglers of all ages to Missouri's lakes and streams. During April there is no better time to catch crappie.

Crappie, hard-fighting game fish that have a mild flavor, are a favorite of many anglers. Crappie is a member of the sunfish family and come in two varieties, black and white. The black crappie is similar to white crappie except that it is darker with a pattern of black spots. During the spawn, black

crappie become much darker and become almost entirely black in color. White crappie are slightly bigger and will be marked by a series of vertical bluish-green stripes.

Crappie spawn from April through June and prefer water temperatures between 58 and 68 degrees. The males nest at varied depths depending on water clarity and will be found along the banks from 4 to 12 feet deep. A good clue that crappie are beginning to spawn is that a fish's fins will become frayed and worn from nest construction.

When fishing for crappie, be mindful of the regulations. The statewide daily limit on crappie in the aggregate, including white crappie and black crappie, is 30, with no length limit. However, several lakes across the state are designated as special management areas, which mean special regulations apply including a reduced daily limit and length limits.



Sean Ernst is the conservation agent for Camden county, which is in the Central region. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.



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“I AM CONSERVATION”

These Parkway North High School students placed 2nd in the country in the 2008 national Canon Envirothon competition. The students, (left to right) Kathleen Beilsmith, Jenny Bower, Jon Lee, Amal Al Lozi and Rebecca Frankenberger, honed their critical thinking skills and worked as a team to answer written questions, conduct hands-on investigations and make oral presentations on environmental issues in five categories—Soils/Land Use, Aquatic Ecology, Forestry, Wildlife, and Current Environmental Issues. These students beat out other teams at both the regional and state level for the privilege of being the only team to represent Missouri at the national level. At the national competition in Arizona, they competed against 54 teams from 46 states and eight Canadian provinces. For more information or to learn how to form a team, visit: www.maswcd.net/envirothon.htm. —PHOTO BY DAVID STONNER